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09/646,194	09/14/2000	Hisashi Saiga	55051(1117)	5757

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EXAMINER

BASOM, BLAINE T

ART UNIT	PAPER NUMBER
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2173

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/13/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<p align="center">Office Action Summary</p>	Application No. 09/646,194		Applicant(s) SAIGA ET AL.	
	Examiner Blaine Basom		Art Unit 2173	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 28,29,31-39 and 41-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 28,29,31-39 and 41-55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/15/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office action is responsive to the Request for Continued Examination (RCE) filed under 37 CFR §1.53(d) for the instant application on December 14, 2006. The Applicants have properly set forth the RCE, which has been entered into the application, and an examination on the merits follows herewith.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on December 15, 2006 was submitted in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Response to Arguments

The Examiner acknowledges the Applicants' amendments to claims 28, 31-34, 36-38, 41-53, and 55. The Applicants' arguments with respect to the pending claims have been considered, but are moot in view of the new grounds of rejection presented below. As the following new grounds of rejection incorporate references previously cited by the Examiner, but contested by the Applicants in their arguments, further discussion regarding the Applicants' arguments is necessary for purposes of clarification.

Regarding the Portable Document Format (PDF) described by Bienz ("Portable Document Format Reference Manual, Version 1.2," to Bienz et al.) and cited in the previous

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Office Action, the Applicants again argue that their invention concerns storing an entire document as a plurality of distinct “pre-specified units” (claim 28) or “distinct files” (claim 38), each having the display information and management information necessary to display the portion of the document with which it is associated. The Examiner, however, respectfully asserts that the claimed invention does not necessarily require a document to be stored as a plurality of distinct pre-specified units or files. For example – in regard to document storage – claim 28 recites, “said data storage medium having a plurality of pre-specified data units that together define a document recorded thereon”. Regarding this phraseology, it is readily apparent that a plurality of PDF files can be stored on a data storage medium, with each PDF file defining a document. Accordingly, since each PDF file defines a document, a plurality of such PDF files together would clearly define a document, and more specifically, would define a plurality of documents. That is, a data storage medium comprising a plurality of PDF files constitutes a data storage medium having a plurality of pre-specified data units (i.e. the PDF files) that together define a document recorded thereon, like claimed. Claim 38 recites similar limitations to claim 28, and is therefore likewise anticipated by the PDF file format.

As a further matter, the Examiner respectfully asserts that one could compose a document stored amongst a plurality of PDF files; he or she would simply store various portions of the document as distinct PDF files, i.e. write a portion of the document and store it as one file, write another portion of the document and store it as a second file, etc. In such circumstances, the storage medium storing all the files would be a data storage medium having a plurality of pre-specified data units (i.e. PDF files) that together define a document recorded thereon, like claimed.

Regarding the Mastie reference (U.S. Patent No. 6,480,866) cited in the previous Office Action, the Applicants assert that while it is true that a document could be composed of multiple page files, and that each of the page files could be formed as a PDF file, the Mastie reference further discloses that it may be necessary to modify the respective page files to conform to the formatting of the document prior to storing the assembled composite document. In response, the Examiner respectfully asserts that forming the single composite document would necessitate storing the plurality of PDF page files, and then (i.e. after storing the PDF page files) modifying the respective page files to conform to the formatting of the document. That is, at some point in time a plurality of distinct PDF files are required to be stored. Such a storage medium storing the plurality of PDF files would be a data storage medium having a plurality of pre-specified data units (i.e. PDF files) that together define a document recorded thereon, like claimed. Thus, although removed from the current grounds of rejection because it is not necessary, the Mastie reference may be applied in the future to teach a data storage medium having a plurality of pre-specified data units (i.e. PDF files) that together define a document recorded thereon.

The Applicants further argue that the claimed invention is distinct from the cited art because of the fact that the claimed "scroll path" is defined by "a starting point and an end point in a coordinate system defined by said pre-specified display unit according to coordinate values assigned to the display elements in said pre-specified unit," as is claimed. The Examiner, however, respectfully disagrees with this argument. As is more fully described *infra*, Bienz discloses that a PDF file can define one or more article "threads," each comprising one or more "beads" (see section 6.12 beginning on page 111). Such beads are considered "intervals" like those of the claimed invention. Bienz further discloses that each bead is identified by an "R"

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parameter, which specifies the page location on which its associated article content (i.e. graphic objects) appears (see Table 6.44 on page 112). This page location is specified in a coordinate system according to the coordinate values assigned to the article content of the bead; the R parameter includes four coordinate values, which specify the lower left (i.e. ending) and upper right (i.e. starting) corners of the rectangle surrounding the associated article content (see section 7.1 on page 133). Accordingly, the scroll path (i.e. a bead within a thread) is defined by a starting point (i.e. an upper right corner) and an end point (i.e. a lower left corner) in a coordinate system defined by a pre-specified display unit (i.e. PDF file) according to coordinate values assigned to the display elements in the pre-specified unit, as is claimed.

The Applicant's arguments have thus been fully considered, but are not persuasive.

Claim Objections

Claim 51 is objected to because of the following informalities: The phrase, "in a coordinate system defined by said according to coordinate values..." occurring in claim 51 is objected to as being grammatically incorrect. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 28-29, 31, 33-36, 38-39, 41, 43-46, and 48-55 are rejected under 35 U.S.C. 102(b) as being anticipated by the “Portable Document Format Reference Manual, Version 1.2,” which is attributed to Bienz et al. (hereafter referred to as “Bienz”). In general, Bienz describes the Portable Document Format (PDF), which is a file format used to specify electronic documents such that the documents are easily and reliably exchanged and viewed (see section 2.1, on page 27). Such PDF documents are stored as files (see section 2.3.2, on page 30), which are interpreted to be maintained in computer memory. As described below, each of these files comprises data to be displayed, in addition to all the display information and scroll display control information necessary for the display of the data. Each of these PDF files is consequently considered a “pre-specified unit,” like recited in the claimed invention. Therefore, computer memory having one or more PDF files stored thereon is considered a data storing medium with display data recorded thereon, wherein the display data is recorded in the form of pre-specified units.

Specifically regarding claims 28 and 38, it is understood that a PDF file describes a document, and comprises all of the information necessary to display the document. For example, Bienz discloses that a PDF document is implemented by a hierarchy of objects included within a PDF file (see section 6.1 on page 71). In particular, each page of the document is realized by a

corresponding "Page object," the Page object being efficiently accessed through a "Pages tree" structure (see section 6.3, beginning on page 75). Each Page object describes the content and functionality of a single document page (see section 6.4, beginning on page 77), and particularly comprises a "Contents" parameter, which references the page description of its corresponding document page (see section 6.4, on page 78). It is understood that this page description comprises various graphic objects, considered display elements and image data objects like recited in claims 28 and 38, respectively, which are displayed within the associated document page (for example, section 8.1 beginning on page 209).

It is also understood that, in addition to all the necessary display data, a PDF file comprises all the information necessary to scroll the document. For example, Bienz discloses that a PDF file may define one or more article "threads," each comprising one or more "beads" (see section 6.12 beginning on page 111). An article bead is associated with a distinct section of an article, whereby a plurality of such beads may be linked into a common thread, so that a user may read an entire article by scrolling from one article bead to the next, rather than from one page to the next (see section 6.12, beginning on page 111). In particular, each bead includes an "R" parameter, which identifies the page location on which its associated article content (i.e. graphic objects) appears (see Table 6.44 on page 112). It is understood that this page location is specified in a coordinate system according to the coordinate values assigned to the article content, since the R parameter is denoted by 4 values, wherein these 4 values identify the coordinates values of the corners of the rectangle surrounding the associated article content (see section 7.1 on page 133). Each article bead is thus specified by a rectangle, or in other words, by two sets of line segments having different directions in a coordinate system - two parallel line

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segments extending in a first direction, and two parallel line segments extending in a second, transverse direction. The coordinate values denote the starting and ending points of these line segments. Additionally, each bead includes a “T” parameter, a “V” parameter, and an “N” parameter, which respectively identify the thread on which the bead belongs, the previous bead in the thread, and the next bead in the thread (see Table 6.44 on page 112). The beads are accordingly linked into a common thread such that a user may scroll from bead to bead, i.e. article section to article section, in order to read an entire article. It is apparent that in doing so, the above-described T, V, and N parameters are used to move from one bead to the next, whereby for each bead, the above-described R parameters reference the bead’s associated article content, which is displayed at an appropriate zoom level (for example, see section 6.12 on page 111). Consequently, as a thread is formed by a plurality of intervals, namely beads, which are specified by line segments having different directions in a coordinate section defined by the PDF file, a thread is considered a scroll path along which scrolling through a document is to be conducted.

Bienz thus presents a pre-specified unit of display data (i.e. a PDF file), which includes (i) display elements (e.g. graphic objects) for display by the display device, and (ii) management elements associated with the display elements, the management elements including all information necessary for the display device to select among the display elements for display, including a display of selected ones or contiguous groups of the display elements in a predetermined sequence as a scroll display, and wherein the information for selecting among the display elements for scroll display defines a plurality of intervals (i.e. beads) that together form a scroll path (i.e. thread) along which the scroll display is to be conducted, the intervals forming

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the scroll path being specified by line segments respectively defined by coordinate values of a starting point and an ending point in a coordinate system defined by the pre-specified unit according to coordinate values assigned to the display elements in the pre-specified unit.

It is readily apparent that a plurality of such PDF files can be stored on a data storage medium, each PDF file defining a document. Accordingly, since each PDF file defines a document, a plurality of such PDF files together would clearly define a document, and more specifically, would define a plurality of documents. That is, Bienz teaches to one of ordinary skill in the art, a data storage medium (i.e. computer memory) like that of claim 28, which is for use with a display device, the data storage medium having a plurality of pre-specified data units (i.e. PDF files) that together define a document recorded thereon. Similarly, Bienz teaches a data storage medium like that of claim 38, the data storage medium having display data associated with an entire document (and more specifically, a plurality of documents) recorded thereon, the display data including a plurality of image data objects for display on a display screen of a display device and all management information associated with each of the image data objects required by the display device for display, including scroll display, thereof.

As per claim 29, Bienz discloses that the document described by a PDF file may comprise one or more pages (for example, see section 6.3, beginning on page 75). Accordingly it is apparent that each pre-specified unit (i.e. PDF file) can include the display elements associated with a document page.

Concerning claim 39, Bienz discloses that the document described by a PDF file may comprise one or more pages (for example, see section 6.3, beginning on page 75). A PDF file is consequently considered a "page grouping" like recited in claim 39, and Bienz thus teaches that a

pre-selected portion of display data may be a page grouping of image data objects, and all of the management information associated therewith, required by the display device for the display, and the scroll display, thereof.

As per claims 31 and 41, Bienz discloses that a PDF document may display a link, similar to a hypertext link, which may be selected to display a thread of the same PDF document, or of a different PDF document (see section 6.9 beginning on page 96, and particularly section 6.9.5 beginning on page 101). It is understood that a user may encounter such a link when reading through an article thread, and that the user may select the link in order to display another article thread referenced by the link. Such a link is thus considered information for linking with another scroll display path, i.e. thread, and Bienz is therefore considered to teach that the management information associated with image data objects may contain information for linking with another scroll display path.

Referring to claims 33 and 43, the article beads of Bienz are considered to constitute "scroll display control information," as is described above in the paragraphs regarding claims 28 and 38. As further shown above, each bead includes an R parameter, which delineates a specific article section by means of four coordinate values, these coordinate values defining a rectangle. The beads are linked into a common thread so that a user may scroll from bead to bead in order to read an entire article, whereby for each bead, the content bounded by this rectangle is displayed at an appropriate zoom level (for example, see section 6.12 on page 111). Thus the management elements taught by Bienz include management elements associated with selected areas of the coordinate system defined by the PDF file.

As per claims 34 and 44 the article beads described by Bienz are considered to constitute “scroll display control information,” as is described above in the paragraphs regarding claims 28 and 38. Each bead includes an R parameter, which as shown above, delineates specific document content by means of four coordinate values, these coordinate values defining a rectangle about the content. The beads are linked into a common thread so that a user may scroll from bead to bead in order to read an entire article, whereby for each bead, the content bounded by this rectangle is displayed at an appropriate zoom level (for example, see section 6.12 on page 111). Consequently, it is understood that the size of such a rectangle affects the amount of zoom for the document content referenced by the bead; for example, if the rectangle is the size of an entire page, the document content may not be zoomed much, whereas if the rectangle is much smaller, the document content may be enlarged more significantly. Thus the scroll display control information taught by Bienz includes information, specifically the rectangle identified by the R parameter, which intrinsically specifies a scale of enlargement or reduction of a display area for scroll display.

As per claims 35 and 45, the B parameter of Bienz, and its referenced article beads, are considered “scroll display control information,” as is described above in the paragraphs regarding claims 28 and 29. Such an article bead includes a R parameter, which as shown above, references specific document content by means of four coordinate values, these coordinate values defining a rectangle about the document content. Regarding the claimed invention, Bienz discloses that PDF documents may include movies and sounds (see section 1.3 on page 20). It is therefore understood that the document content referenced by the above-described R parameter may comprise movies and/or sounds. Consequently, the scroll display control information taught

by Bienz can include synchronous reproduction information, namely the R parameter, which specifies data content to be reproduced in synchronism with the scroll display, and wherein this data content may comprise non-motionless data such as sound and/or moving images.

In reference to claims 36 and 46, Bienz discloses that a computer is used for reproducing and displaying a PDF document (for example, see section 2.2 on page 28). As described above, such a PDF document is stored in a storage medium and is scrolled based on the above-described scroll display control information. Such a computer presenting the PDF document described by Bienz is therefore considered a “display device,” like that recited in claims 36 and 46.

As per claims 54 and 55, the article beads described by Bienz are considered to constitute “scroll display control information,” as is described above in the paragraphs regarding claims 28 and 38. Each bead includes an R parameter, which as shown above, delineates specific document content by means of four coordinate values, these coordinate values defining a rectangle about the content. The beads are linked into a common thread so that a user may scroll from bead to bead in order to read an entire article, whereby for each bead, the content bounded by this rectangle is displayed at an appropriate zoom level (for example, see section 6.12 on page 111). Consequently, it is understood that the size of such a rectangle affects the amount of zoom for the document content referenced by the bead; for example, if the rectangle is the size of an entire page, the document content may not be zoomed much, whereas if the rectangle is much smaller, the document content may be enlarged more significantly. Thus the scroll display control information taught by Bienz includes information, specifically the rectangle identified by the R parameter, which intrinsically specifies a scale of enlargement or reduction of a display area for scroll display.

Regarding claims 48-53, Bienz discloses that a PDF file can define one or more article “threads,” each comprising one or more “beads” (see section 6.12 beginning on page 111). Such beads are considered “intervals” like those of the claimed invention, as is asserted above. Bienz further discloses that each bead is identified by an “R” parameter, which specifies the page location on which its associated article content (i.e. graphic objects) appears (see Table 6.44 on page 112). This page location is specified in a coordinate system according to the coordinate values assigned to the article content of the bead; the R parameter includes four coordinate values, which specify the lower left (i.e. ending) and upper right (i.e. starting) corners of the rectangle surrounding the associated article content (see section 7.1 on page 133). Furthermore, Bienz discloses that each bead includes a “V” parameter and an “N” parameter, which respectively identify the previous bead in the thread and the next bead in the thread (see Table 6.44 on page 112). Such V and N parameters are considered “vectors” like those of the present application, since they generally specify a direction (i.e. a next bead) to which to scroll. The beads are accordingly linked into a common thread such that a user may scroll from bead to bead, i.e. article section to article section, in order to read an entire article. It is apparent that in doing so, the above-described V and N parameters are used to move from one bead to the next, whereby for each bead, the above-described R parameters reference the bead’s associated article content, which is displayed at an appropriate zoom level (for example, see section 6.12 on page 111). Accordingly, Bienz teaches that a PDF file comprises information necessary to select among display elements for display, wherein this information specifies a scroll path (i.e. a thread) for the display of selected ones or contiguous groups of the display elements including vectors (i.e. V and N parameters) connecting intervals (i.e. beads), the intervals being identified

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by starting and ending coordinate values (i.e. R values) of the selected ones or contiguous groups of display elements in a coordinate system defined by the display elements according to coordinate values assigned to the display elements in each of the pre-specified units, and wherein a sequential display of the selected ones or contiguous groups of display elements is conducted along the predetermined sequence of intervals determined by the vectors.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 37 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bienz, which is described above, and also over U.S. Patent No. 5,634,064, which is attributed to Warnock et al. (and hereafter referred to as "Warnock"). As described above, Bienz teaches a display device like that of claims 36 and 46, which is used to display and control a document specified by a PDF file, wherein the PDF file comprises scroll information specifying one or more threads for the document. Bienz discloses that such threads each comprise one or more "beads," wherein the beads are associated with a particular portion (e.g. an article section) of the document (see section 6.12 beginning on page 111). The beads are accordingly linked such that a user may scroll from bead to bead, i.e. article section to article section, in order to read an entire article within the document, rather than from page to page (see section 6.12 beginning on

page 111). Bienz, however, does not explicitly disclose that the scroll display is conducted only while a user instructs a display controller to perform the scroll display in either a forward or backward direction along a selected scroll path (i.e. thread), as is expressed in claims 37 and 47.

Like the PDF format described above, Warnock discusses documents which may comprise one or more articles, each article having sections on different pages of the document, whereby a thread may be created so that a user may read an entire article by scrolling from one article section to the next, rather than from one page to the next (see column 2, line 30 – column 3, line 31). When displayed, each article section is automatically zoomed to fit within the display window, yet may still require scrolling if the length of the article section, for example, does not fit within the window (see column 10, line 56- column 11, line 36). Particularly, each article section is displayed at either the beginning of the section and scrolled toward the end of the section, or displayed at the end of the section and scrolled toward the beginning (see column 11, line 31 – column 12, line 9). Regarding the claimed invention, Warnock teaches that the PDF document is scrolled only while the user instructs the computer to scroll the document in either the forward or backward directions along a thread (for example, see column 2, lines 38-55; and column 10, line 56 – column 12, line 9).

It would have been obvious to one of ordinary skill in the art, having the teachings of Bienz and Warnock before him at the time the invention was made, to modify a display device displaying the PDF-formatted document taught by Bienz, such that the PDF document is scrolled only while the user instructs the device to scroll the document in either the forward or backward directions along a thread, as is done by Warnock. It would have been advantageous to one of

ordinary skill to utilize this combination, because such scrolling in response to user input provides the user more control over the display of the document, as is demonstrated by Warnock.

Claims 32 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bienz, which is described above, and also over Japanese Patent No. 5-323941, which is attributed to Michihiro Ota (and hereafter referred to as "Ota"). As described above, Bienz teaches a data storage medium with display data recorded thereon, wherein like recited in claim 38, the display data is provided with all the necessary information for scroll display on a display screen. This information for scroll display comprises a plurality of beads denoting article sections, which as described above, may be linked into a common thread, so that a user may read an entire article by scrolling from one article bead to the next, rather than from one page to the next (see section 6.12, beginning on page 111). Bienz, however, does not explicitly disclose that this information for scroll display includes information specifying a scroll display speed, as is expressed in claims 32 and 42.

Like Bienz, Ota discloses a method for presenting a document on a display screen, whereby the document can be scrolled. Regarding the claimed invention, Ota teaches that the scroll speed may be varied according to the number of characters displayed (see the abstract of Ota). Consequently it is understood that the document described by Ota is associated with information for scroll display, wherein this information for scroll display includes information on a scroll display speed.

It would have therefore been obvious to one of ordinary skill in the art, having the teachings of Bienz and Ota before him at the time the invention was made, to modify the

information for scroll display taught by Bienz such that the articles may be scrolled at a rate proportional to the number of characters displayed, as is taught by Ota. It would have been advantageous to one of ordinary skill to utilize such a combination because the resulting document scrolling speed would match the document reading speed of a user, as is taught by Ota (see the abstract of Ota). This is a desirable attribute for a document displaying system. Thus with this combination of Bienz and Ota, the beads of an article thread are each scrolled at a rate proportional to the number of characters displayed in the article section associated with each bead. In other words, the content of the article section implicitly specifies the scroll display speed of that section. The content of such an article section is determined by the P and R parameters of the bead associated with that article section, as is described above in the rejection for claims 28-29 and 38-39. Thus the P and R parameters of each bead specifies the content of an article section, which in turn includes information (namely the characters displayed in that article section) that determines the scroll display speed, and therefore, the P and R parameters are understood to inherently include information specifying the scroll display speed. Consequently with this combination of Bienz and Ota, the scroll display control information includes information specifying a scroll display speed.

Conclusion

The prior art made of record on form PTO-892 and not relied upon is considered pertinent to applicant's disclosure. The applicant is required under 37 C.F.R. §1.111(C) to consider these references fully when responding to this action. The Murasaki et al. U.S. Patents

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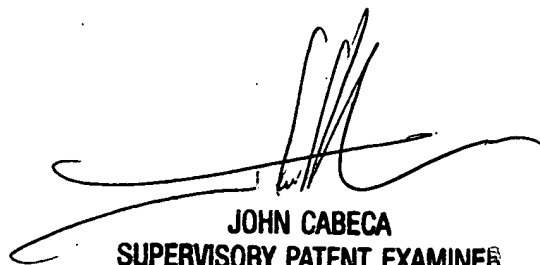
cited therein teaches applying vectors like those of the claimed invention to specify a scrolling display. Similarly the Sawada et al. U.S. Patent cited therein teaches applying vectors to specify a scrolling display.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blaine Basom whose telephone number is (571) 272-4044. The examiner can normally be reached on Monday through Friday, from 8:30 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine Kincaid can be reached on (571) 272-4063. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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